WHAT IS CLAIMED IS:

1. A method of forming a multi-domain for aligning liquid crystal, comprising:

forming an alignment film on a substrate;

scanning the alignment film with an atomic beam irradiated in a first direction to form a first domain in a first region of the first alignment film; and

scanning the alignment film with the atomic beam irradiated in a second direction to form a second domain in a second region of the first alignment film.

2. The method of claim 1, wherein the alignment film comprises a material selected from the group consisting of diamond-like-carbon (DLC), silicon oxide, silicon nitride, poly crystalline silicon, amorphous silicon, titanium oxide and polyimide.

3. The method of claim 1, wherein the atomic beam is irradiated only in the first region of the first alignment film via a first mask having a first opening that exposes the first region.

4. The method of claim 3, wherein the first mask makes contact with a surface of the first alignment film.

5. The method of claim 4, wherein the first mask corresponds to an aluminum oxide (Al_2O_3) layer coated on the first alignment film.

6. The method of claim 1, wherein the atomic beam is irradiated only in the second region of the first alignment film via a second mask having a second opening that exposes the second region.

7. The method of claim 6, wherein the second mask makes contact with a surface of the first alignment film.

8. The method of claim 7, wherein the second mask corresponds to an aluminum oxide (Al_2O_3) layer coated on the first alignment film.

9. The method of claim 1, wherein the atomic beam is formed by:

dissociating atoms to transform the atoms into ions;

accelerating the ions to form an ionic beam; and

neutralizing the ionic beam to transform the ionic beam into an atomic beam.

10. The method of claim 1, wherein the atomic beam is irradiated only in the first region of the first alignment film via a first floating mask having a third opening that exposes the first region, the first floating mask being disposed over the first alignment film.

11. The method of claim 10, wherein the first floating mask comprises a support frame, and a plurality of first, second and third wires, the support frame having an opening at a center portion of the support frame, each of the first wires being extended in a first direction in the opening, both ends of each of the first wires being connected to an inner wall of the support

frame, each of the second wires being extended in a second direction in the opening, both ends of each of the second wire being connected to the inner wall of the support frame, the first direction being substantially perpendicular to the second frame, both ends of each of the third wires being connected to two neighboring first wires respectively to block a portion of a window formed by the first and second wires from the atomic beam.

12. The method of claim 1, wherein the atomic beam is irradiated only in the second region of the first alignment film via a second floating mask having a fourth opening that exposes the second region, the second floating mask being disposed over the first alignment film.

13. The method of claim 12, wherein the second floating mask comprises a support frame, and a plurality of first, second and third wires, the support frame having an opening at a center portion of the support frame, each of the first wires being extended in a first direction in the opening, both ends of each of the first wires being connected to an inner wall of the support frame, each of the second wires being extended in a second direction in the opening, both ends of each of the second wire being connected to the inner wall of the support frame, the first direction being substantially perpendicular to the second frame, both ends of each of the third wires being connected to two neighboring first wires respectively to block a portion of a window formed by the first and second wires from the atomic beam.

14. A method of manufacturing a liquid crystal display device, comprising:

forming first and second electrodes on a first substrate;

forming a first alignment film on the first substrate;

irradiating an atomic beam in a first alignment region of the first alignment film in a first direction, the first alignment region corresponding to a first region of the first electrode;

irradiating the atomic beam in a second alignment region of the first alignment film in a second direction, the second alignment region corresponding to a second region of the first electrode; and

assembling the first substrate with a second substrate.

15. The method of claim 14, wherein at least one first region and at least one second region are formed on the first electrode.

16. The method of claim 14, wherein the first and second region alternate with each other.

17. The method of claim 14, wherein the second substrate comprises a color filter facing the first electrode of the first substrate.

18. The method of claim 14, wherein the first substrate comprises a color filter covering the first electrode.

19. The method of claim 14, wherein the first and second electrodes are formed in the first substrate, the first and second electrodes being in parallel with each other.

20. The method of claim 14, wherein the second substrate comprises a second alignment film formed thereon, the second alignment film facing the first alignment film of the first substrate, the atomic beam being irradiated in a third alignment region of the second alignment film in a third direction, the third alignment region corresponding to the first region of the first electrode, the atomic beam being irradiated in a fourth alignment region of the second alignment film in a fourth direction, the fourth alignment region corresponding to the second region of the first electrode.

21. The method of claim 20, wherein the first and second directions are in parallel with the third and fourth directions respectively.

22. The method of claim 20, wherein a liquid crystal layer is disposed between the first and second alignment films, liquid crystal molecules of the liquid crystal layer are vertically aligned with respect to the first and second alignment films.

23. The method of claim 20, wherein the third direction forms a first angle with respect to the first direction, and the fourth direction forms a second angle with respect to the second direction, the first and second angles being in a range from about 90° to about 270° respectively.

24. The method of claim 23, wherein a liquid crystal layer is disposed between the first and second alignment films, liquid crystal molecules of the liquid crystal layer are aligned to form a spiral shape.

25. A method of manufacturing a liquid crystal display device, comprising:

forming a first electrode on a first substrate;

forming a second electrode on a second substrate;

forming a first alignment film on the first substrate;

irradiating an atomic beam in a first alignment region of the first alignment film in a first direction, the first alignment region corresponding to a first region of the first electrode;

irradiating the atomic beam in a second alignment region of the first alignment film in a second direction, the second alignment region corresponding to a second region of the first electrode; and

assembling the first substrate with a second substrate.

26. The method of claim 25, wherein a count (or number) of each of the first and second regions is at least one.

27. The method of claim 25, wherein the first and second regions alternate with each other.

28. The method of claim 25, wherein the second substrate is assembled with the first substrate, such that the second electrode faces the first electrode.

29. The method of claim 25, wherein the second substrate comprises a color filter facing the first electrode of the first substrate.

30. The method of claim 25, wherein the first substrate comprises a color filter covering the first electrode.

31. The method of claim 25, wherein the second substrate comprises a second alignment film formed thereon, the second alignment film facing the first alignment film of the first substrate, the atomic beam being irradiated in a third alignment region of the second alignment film in a third direction, the third alignment region corresponding to the first region of the first electrode, the atomic beam is irradiated in a fourth alignment region of the second alignment film in a fourth direction, the fourth alignment region corresponding to the second region of the first electrode.

32. The method of claim 31, wherein the first and second directions are parallel with the third and fourth directions respectively.

33. The method of claim 32, wherein a liquid crystal layer is disposed between the first and second alignment films, liquid crystal molecules of the liquid crystal layer are vertically aligned with respect to the first and second alignment films.

34. The method of claim 31, wherein the third direction forms a first angle with respect to the first direction, and the fourth direction forms a second angle with respect to the second direction, the first and second angles being in a range from about 90° to about 270° respectively.

35. The method of claim 34, wherein a liquid crystal layer is disposed between the first and second alignment films, liquid crystal molecules of the liquid crystal layer are aligned to form a spiral shape.

36. A liquid crystal display device comprising:

first and second substrates facing with each other;

first and second electrodes disposed between the first and second substrates;

a first alignment film formed on the first substrate, the first alignment film having first and second polarized functional groups for aligning liquid crystal molecules, the first polarized functional group being formed on a first alignment region corresponding to a first region of the first electrode, the first polarized functional group being formed in a first direction, the second polarized functional group being formed on a second alignment region corresponding to a second region of the first electrode, the second polarized functional group being formed in a second direction;

a second alignment film formed on the second substrate; and

a liquid crystal layer interposed between the first and second substrates.

37. The liquid crystal display device of claim 36, wherein a count (or number) of each of the first and second regions is no less than one.

38. The liquid crystal display device of claim 36, wherein the first and second regions alternate with each other.

39. The liquid crystal display device of claim 36, wherein the first electrode is disposed in the first substrate, and the second electrode is disposed in the second substrate.

40. The liquid crystal display device of claim 36, wherein the first and second substrates are disposed on the first substrate, such that the first and second substrates are in parallel with each other.

41. The liquid crystal display device of claim 36, wherein the second alignment film comprises third and fourth polarized functional groups for aligning liquid crystal molecules, the third polarized functional group being formed in a third alignment region corresponding to a first region of the first electrode, the third polarized functional group being formed in a third direction, the fourth polarized functional group being formed on a fourth alignment region corresponding to a second region of the first electrode, the fourth polarized functional group being formed in a fourth direction.

42. The liquid crystal display device of claim 41, wherein the first and second directions are in parallel with the third and fourth directions respectively.

43. The liquid crystal display device of claim 42, wherein a liquid crystal layer is disposed between the first and second alignment films, liquid crystal molecules of the liquid crystal layer are vertically aligned with respect to the first and second alignment films.

44. The liquid crystal display device of claim 41, wherein the third direction forms a first angle with respect to the first direction, and the fourth direction forms a second angle with respect to the second direction, the first and second angles being in a range from about 90° to about 270° respectively.

45. The method of claim 44, wherein a liquid crystal layer is disposed between the first and second alignment films, liquid crystal molecules of the liquid crystal layer are aligned to form a spiral shape.

46. A liquid crystal alignment apparatus comprising:

a base body that supports a substrate having first and second faces, an alignment film being formed on the first face;

an atomic beam generator irradiating an atomic beam, the atomic beam generator moving along the alignment film to scan the alignment film; and

an atomic beam blocking unit disposed between the base body and the atomic beam generator, the atomic beam blocking unit including a mask having an opening, the atomic beam generated from the atomic beam generator being irradiated onto a portion of the alignment film, the portion of the alignment film being exposed through the opening of the mask.

47. The liquid crystal alignment apparatus of claim 46, wherein the atomic beam generator comprises:

an ion generator dissociating atoms to form ions;

an ion accelerator accelerating the ions to form an ionic beam; and

a neutralizer neutralizing the ionic beam to form an atomic beam.

48. The liquid crystal alignment apparatus of claim 47, further comprising an angle adjuster that adjusts an irradiation angle of the atomic beam.

49. The liquid crystal alignment apparatus of claim 46, wherein the atomic beam blocking unit further comprises a mask supporter that supports the mask for preventing a sag of the mask.

50. The liquid crystal alignment apparatus of claim 49, wherein the mask supporter corresponds to no less than one protrusion that makes contact with the alignment film of the substrate.

51. The liquid crystal alignment apparatus of claim 49, wherein the mask supporter corresponds to a quartz bar extending along a portion of the mask, the portion being disposed between the openings of the mask.

52. The liquid crystal alignment apparatus of claim 49, wherein the mask supporter corresponds to a support wire extending along a portion of the mask, the portion being disposed between the openings of the mask.

53. The liquid crystal alignment apparatus of claim 49, wherein the mask supporter makes contact with the second face of the substrate.

54. The liquid crystal alignment apparatus of claim 49, wherein a longitudinal direction of the mask supporter is substantially in parallel with a direction of scanning of the atomic beam generator.

55. A liquid crystal alignment apparatus comprising:

a base body that supports a substrate having an alignment film formed thereon;

a housing disposed over the base body, the housing having an opening;

a lift unit disposed on the base body, the lift unit being combined with the housing to lift the housing;

an atomic beam blocking unit having a window, the atomic beam blocking unit covering the opening of the housing; and

an atomic beam generating unit disposed in the housing, the atomic beam generating unit moving along the alignment film to irradiate atomic beam onto the alignment film selectively via the window.

56. The liquid crystal alignment apparatus of claim 55, wherein a transferring unit is formed in the cover, the transferring unit moving the atomic beam generating unit.

57. The liquid crystal alignment apparatus of claim 55, wherein the lift unit includes a lift bar erected on the base body, and a lift body that moves along the lift bar.